

1135-N5-1830      **Edwin Herman\*** ([edwin.herman@uwsp.edu](mailto:edwin.herman@uwsp.edu)). *A Mathematical Research Methods Course.*

In 2016 I taught a Research Methods course as a capstone for our Mathematics Major. I used resources from the PIC Math program (MAA & SIAM; funded via NSF grant DMS-1345499) to help design a course wherein student groups worked on open-ended research problems drawn from real industrial contacts. Unlike many versions of the course, I spent significant time at the start on smaller projects designed to facilitate teamwork and out-of-the-box thinking. Overall, the course ran surprisingly smoothly. The only major issue I had was timing: groups did not have quite enough time to make as much headway as desired on the main research question.

The following year I made changes to improve my course: I found new industrial contacts and streamlined the early part of the course to allow more time for teams to work on their main research project. Groups accomplished more – one team discovered something completely unanticipated by our contact - but there was also more friction in some groups.

In my talk I will discuss how I set up my course and what I learned along the way, including the process of helping contacts generate viable research problems and the challenges of dealing with a difficult IRB. I will also present student feedback about the projects and about the course in general. (Received September 25, 2017)